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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

BOYCE, ANDRE D

ART UNIT	PAPER NUMBER
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3623

DATE MAILED: 10/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/740,201

Applicant(s)

O'MEARA ET AL.

Examiner

Andre Boyce

Art Unit

3623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 December 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-36 have been examined.

Claim Objections

2. Claim 36 is objected to under 37 CFR 1.75(c) as being improper dependent form. The claim would fail the infringement test as seen in MPEP § 608.01(n)(III), since someone could infringe on claim 36 without infringing on base claim 24. Applicant is required to cancel the claim, or amend the claim to place it in proper dependent form, or rewrite the claim in independent form.
3. Claims 1, 4, 5, 17, 22, 23, 24, 30, 34, and 35 are objected to because of the following informalities: "prioritised" and "fulfil" are misspelled. Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
5. Claims 1-23 and 35 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitations "the availability" and "said identified agent" in lines 7 and 13. respectively. There is insufficient antecedent basis for this limitation in the claim.

Claim 5 recites the limitation "the ability". There is insufficient antecedent basis for this limitation in the claim.

Claim 10 recites the limitations "the distance" and "the current time". There is insufficient antecedent basis for this limitation in the claim.

Claim 23 recites the limitation "the availability". There is insufficient antecedent basis for this limitation in the claim.

Claim 35 recites the limitation "the availability". There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 101

6. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

7. Claims 1-23 and 30-34 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The basis of this rejection is set forth in a two-prong test of:

- (1) whether the invention is within the technological arts; and
- (2) whether the invention produces a useful, concrete, and tangible result.

For a claimed invention to be statutory, the claimed invention must be within the technological arts. Mere ideas in the abstract (i.e., abstract idea, law of nature,

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natural phenomena) that do not apply, involve, use, or advance the technological arts fail to promote the "progress of science and the useful arts" (i.e., the physical sciences as opposed to social sciences, for example) and therefore are found to be non-statutory subject matter.

For a process claim to pass muster, the recited process must somehow apply, involve, use, or advance the technological arts. In the present case the independent claims 1, 23, and 30 only recite abstract ideas. The recited steps of maintaining a current order, maintaining a prioritized listing, receiving a location based order, etc. does not involve, use, or advance the technological arts (i.e., computer, processor, electronically, etc.), since the steps could be performed using pencil and paper.

Further, as to technological arts recited in the preamble (i.e., method of operating an ordering server, in claim 24), mere recitation in the preamble (i.e., intended or field of use) or mere implication of employing a machine or article of manufacture to perform some or all of the recited steps does not confer statutory subject matter to an otherwise abstract idea unless there is positive recitation in the claim as a whole to breathe life and meaning into the preamble. Looking at the claim as a whole, nothing the body of the claim recites any structure or functionality to suggest that a computer performs the recited steps. Therefore, the preamble is taken to merely recite a field of use.

Additionally, for a claimed invention to be statutory, the claimed invention must also produce a useful, concrete, and tangible result. In the present case independent claim 1 allocates and order to an agent, thereby producing a useful,

concrete, and tangible result. However, independent claims 23 and 30, while producing a useful and concrete result, do not produce a tangible result. In both instances the claims merely maintain a listing of locations.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claims 1-17, 22-25, 27, and 30-36 are rejected under 35 U.S.C. 102(e) as being anticipated by Powell et al (US 2002/0065700).

As per claim 1, Powell et al disclose a method of allocating a location-related order to one of a plurality of mobile agents (processing work assignments to a mobile workforce ¶ 0033), comprising the steps of a) maintaining a current order record identifying a first location and first time at which each agent is expected to become free to fulfil a new order (workforce member scheduled examined and periods of availability and slack time are identified, ¶ 0033); b) maintaining a prioritised listing of locations, with locations in said listing being prioritised for an agent according to the availability of the agent to reach each location after said first time (consideration of workforce members geographic location and associate a

geographic block to minimize travel time, ¶ 0044); c) receiving said location-based order and recording the location and time at which said order is to be fulfilled (pooled work order associated with geographic block, ¶ 0044); d) determining from said prioritised listing of locations a suitable agent to fulfil said order (workforce member with slack time or periods of availability in the geographic block, ¶ 0044); and e) allocating said order to said identified agent (pooled work orders associated with the geographic block are inserted into workforce member's schedule who has slack, ¶ 0044).

As per claim 2, Powell et al disclose step a) comprises maintaining for each agent an individual current order file relating only to that agent (individual work force member schedule, ¶ 0033).

As per claim 3, Powell et al disclose step a) comprises maintaining a combined current order file relating to a plurality of agents, with said first location and first time identified for each such agent (schedule created for the work force as a whole, ¶ 0033).

As per claim 4, Powell et al disclose step b) comprises maintaining for each agent an individual prioritised location listing relating only to that agent (workforce member geographic location and associated geographic block, ¶ 0044).

As per claim 5, Powell et al disclose step b) comprises maintaining a combined prioritised location listing relating to a plurality of agents, with each location being prioritised for one or more agents according to the ability of the or each such agent to reach each location after said first time relating to the agent (i.e., each workforce

member's geographic location and associated geographic block is examined in order to minimize travel time, ¶ 0044).

As per claim 6, Powell et al disclose the step of updating the current order record for said identified agent with a new first location and first time at which said agent is expected to become free after fulfilling said order (i.e., process is iterative until all slack time is filled, ¶ 0044).

As per claim 7, Powell et al does not disclose said step of allocating said order comprises i) offering said order to said agent (i.e., inserting work order into workforce member's schedule); and ii) receiving confirmation of acceptance of the order from the agent (i.e., confirmation is assumed upon delivery of new schedule to workforce member, wherein scheduling assignments are based upon worker preference, ¶ 0040).

As per claim 8, Powell et al disclose said current order record identifies locations and times relating to all current orders assigned to said agent (i.e., geographic location and slack time or availability).

As per claim 9, Powell et al disclose said listing of locations identifies the priority of each location with a time at which the agent is expected to be able to reach said location (i.e., minimize travel time between consecutive work orders, ¶ 0044).

As per claim 10, Powell et al disclose said listing of locations identifies the priority of each location with a priority identifier calculated from the distance between each such location and said first location, and the time between the current time and said

first time (i.e., minimization of travel time based upon the geographic block of the work order, ¶ 0043).

As per claim 11, Powell et al disclose said distance is a true geographical distance (i.e., geographical area 30 represent true distances, figure 2).

As per claim 12, Powell et al disclose said distance is a distance calculated in a non-linear representation of an area including said locations (i.e., area 30 parsed into grid blocks 31, figure 2).

As per claim 13, Powell et al disclose said representation is selected from a grid of cells to which locations are mapped, a set of groups of locations, and a mesh of elements to which locations are mapped (grid blocks 31).

As per claim 14, Powell et al disclose said locations are identified as cells within a grid to which locations are mapped (grid blocks 31).

As per claim 15, Powell et al disclose said locations are identified as groups of locations within a set of such groups (i.e., groups of geographic blocks).

As per claim 16, Powell et al disclose said locations are identified as elements within a mesh of elements to which locations are mapped (i.e., circle shapes 36 represent pooled work locations, and diamonds 34 represent service orders, figure 2).

As per claim 17, Powell et al disclose updating the prioritised listing for said identified agent when said order has been allocated, to take account of said new first location and new first time (i.e., iterative process updates workforce members schedule and looks for additional slack time or availability, ¶ 0044).

As per claim 22, Powell et al disclose said current order file further includes details of an advance order, including a second location and a second time after said first time, at which said advance order is to be fulfilled, and wherein step d) includes the step of determining whether the agent is expected to be able to finish said new location-based order with sufficient time to fulfil said advance order (i.e., iterative process updates workforce members schedule and looks for additional slack time or availability in order to add new work orders, ¶ 0044).

Claim 23 is rejected based upon claim 17 (which depends from claim 6 and claim 1), as containing the same limitations, therein.

Claim 24 is rejected based upon the rejection of claim 1, since it is the system claim corresponding to the method claim.

As per claim 25, Powell et al disclose said input interface comprises an operator interface for an operator to input details received from an ordering party (user interface 102, ¶ 0067).

As per claim 27, Powell et al disclose a map database correlating real geographical locations with location identifiers for use in identifying locations in said current orders file and said listing (i.e., computer program 92 must include a map database in order to determine minimal travel time based upon geographic locations).

Claims 30-34 are rejected based upon the rejections of claims 1, 8, 22, 2, and 4, respectively, since they are the profile claims relating to the method claims, and contain the same limitations therein.

Claim 35 is rejected based upon the rejection of claim 1, since it is the program product claim, corresponding to the method claim.

Claim 36 is rejected based upon the rejection of claim 1, since it is the communication network claim, corresponding to the method claim.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 18-20, 26, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Powell et al, as applied to claims 1 and 24 above, in view of Jacobs et al (US 2001/0047287).

As per claims 18-20, Powell et al does not disclose said first time is calculated from a journey time file which records expected journey times between locations, and said first time is input by an operator based on an expected journey time, wherein the operator is the agent to which the current order record relates. Sisley et al disclose the travel time being specified by the system user and stored in a travel time file, wherein the system user could be the technician (column 26, lines 53-55). Both Powell and Sisley are concerned with effective workforce scheduling, therefore it would have been obvious to one having ordinary skill in the art at the time the

invention was made to include a travel time file in the Powell system, thereby making the system more efficient in determining repetitive travel times.

As per claim 26, Powell et al does not disclose said input interface is selected from a web server hosting a user interface via which ordering parties can input order details, a Wireless Application Protocol (WAP) server hosting a user interface via which ordering parties can input order details, an Interactive Voice Response (IVR) unit via which a user can input order details and a Short Messaging Service (SMS) gateway for receiving SMS messages containing order details. Sisley et al disclose a service management system and one or more interactive user interfaces 18 for communication between the scheduling system and the users (column 5, lines 35-41). Both Powell and Sisley are concerned with effective workforce scheduling, therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to include a interactive communication system in the Powell system, thereby making the system more efficient in communicating customer needs to the workforce members.

Claim 28 is rejected based upon the rejection of claim 18, since it is the system claim corresponding to the method claim.

12. Claims 21 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Powell et al, as applied to claims 1 and 24 above, in view of Ditcharo et al (USPN 6,587,851).

As per claim 21, Powell et al does not disclose the step of maintaining said current order record includes providing access to an agent to said current order record to edit the details recorded therein. Ditcharo et al disclose access unit 204 including provisions that allow technicians to retrieve information and run tests (column 5, lines 16-24). Both Powell and Ditcharo are concerned with effective workforce scheduling, therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to include workforce member access to records in Powell, as an efficient means of sharing information within the system, thereby improving overall communications.

Claim 29 is rejected based upon the rejection of claim 21, since it is the system claim corresponding to the method claim.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

-Jacobs et al (US 2001/0047287) disclose schedule generation.

-Hall et al (USPN 6026375) disclose scheduling completion of a customer order.

-Kocur (USPN 5913201) disclose assigning workers to a plurality of work projects.

-Whyel (US 2001/0027481) disclose scheduling appointments and reservations.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andre Boyce whose telephone number is (703) 305-1867. The examiner can normally be reached on 9:30-6pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on (703) 305-9643. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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